

Day 2: Session 3

Development of Women Engineers in Malaysia

SUB-COMMITTEE ON WOMEN ENGINEERS



by Ir. Shamala Peramayah

Profile of Y.Bhg. Datuk Ir. Rosaline Ganendra

She obtained her BSc. degree in Civil Engineering from the Imperial College of Science and Technology, London (1984). She was the Vice President of The Institution of Engineers, Malaysia (IEM) Council and the Chairman of the Standing Committee on Welfare and Service Matters (2009 to 2011). She was the first Chair Lady of the G&S Section. Datuk Ir. Rosaline is the National Member of the World Federation of Engineering Organization (WFEO) Executive Council and a member of the Standing Committee for Women in Engineering (WIE). Currently, she is a Fellow of The Institution of Engineers Malaysia (FIEM), Member of the Board of Engineers, Malaysia (BEM), Fellow of the Institution of Highways and Transportation, UK (FIHT), Hon. Fellow of ASEAN Federation of Engineering Organization (AFEO), Fellow of the Institution of Engineers, India (FIEI), Member of The Institution of Engineers Australia and Chartered Professional Engineer (MIEAust, CPEng), Registered Professional Engineer Queensland (RPEQ) and Member of the Asia Pacific Economic Cooperation (APEC).



THE speaker, Y.Bhg. Datuk Ir. Rosaline Ganendra, the current Director of Minconsult Sdn. Bhd., has acquired 28 years of technical experience in civil and structural engineering and 21 years of experience in project management. She was an active member of numerous associations in Malaysia and overseas. Datuk Ir. Rosaline presented the statistic of women in Science, Engineering and Technology (SET) which has increased drastically over the last 30 years.

For the past two decades, women engineers registered with The Institution of Engineers, Malaysia (IEM) and also Board of Engineers Malaysia (BEM) has shown a significant increase. The tremendous upward trend was due to the equal opportunity in education for both genders whereby the enrolment of female students in engineering studies has risen from merely 5% in 1981 to 30% in 1999 and about 50% in 2010. With that, female students graduated from engineering courses have raised from 3% in 1981 to 28% in 1991 and about 50% in 2010. Likewise, the involvement of women in technology and professions such as architect, planner, surveyor and scientist in Malaysia has also gradually increased.

In the education sector, an uprising enrolment of female students in primary and secondary had a significant impact

as the number had rose to 97% in 2011. In addition, the enrolment of Malaysian women in tertiary institutions and universities had increased to 53% from the total enrolment in local universities by 2010. However, the Department of Statistics revealed that only 36% of women enter the job market compared to men, and nearly 65% of women leave the labour market when they are married to concentrate on their family. Primarily, the female engineers were keen to pursue civil engineering, followed by electrical and chemical as compared to other engineering disciplines, possibly as they are less physically demanding and the work environment is more conducive for women.

Datuk Ir. Rosaline talked about problems, issues and obstacles to career progression faced by the women in their respective fields. Lack of women in senior positions is due to insignificant number of women graduates when it first started in the 1960s. Other identified problems include disability to retain the women in their relevant fields, work life balance; pressure from home and work. As a result, women dropped out faster than the men. She also highlighted that the shortage of women in their respective fields was due to the lack of information and knowledge about the profession. Therefore, she proposes that more campaign should be held in schools. Pay gap between male and female workers is another issue needed to be addressed. She also pointed out other issues faced by women and offered suggestions to overcome them.

She continued her presentation on 'Initiatives, Achievement and Successes' where she proposed ideas, encouragements and suggestions for women to move up the ladder of success. She constantly reminds everyone to recognise the 'corporate game' played by men. She urged women to establish a network within and outside the organisation, to lobby for themselves and their work, to communicate effectively, ask for lots of feedbacks, and perform well to produce results.

She pointed out some attributes of a good engineer, namely good in problem solving, have good people skills and excellent technical skills. Finally, the managerial and people skills were often equally or more important. With that, she concluded that women engineers in Malaysia can exploit their potential to the fullest in the engineering field, although sometimes it could be physically demanding, such as working in an oil platform. The technological capacity of our country will be strengthened through the greater participation of women in all aspects. ■